

WHAT IS CLAIMED IS

- 5
1. A power supply control method adapted to a current-to-voltage conversion circuit which has a transformer for converting and outputting an input power, comprising:
- 10 stopping a power supply to the transformer when an output side of the current-to-voltage conversion circuit is in a no-load state; and
- starting a power supply to the transformer when an external voltage is applied to the output side of
- 15 the current-to-voltage conversion circuit.
- 20
2. The power supply control method as claimed in claim 1, wherein the external voltage is applied to the output side of the current-to-voltage conversion circuit in a deactivated state, by controlling ON and OFF states of a switching circuit
- 25 within an electronic apparatus to which the current-to-voltage conversion circuit is coupled.
- 30
3. A current-to-voltage conversion circuit having an active state and a deactivated state, comprising:
- an input section to input an input power;
- 35 a transformer to convert the input power into an output power;
- an output section to output the output power;

a first circuit to stop a power supply to the transformer and put the current-to-voltage conversion circuit into a deactivated state when the output section is in a no-load state; and

5 a second circuit to start a power supply to the transformer and put the current-to-voltage conversion circuit into an active state when an external voltage is applied to the output section.

10

4. The current-to-voltage conversion circuit as claimed in claim 3, wherein said first
15 circuit includes a first comparator to compare an output current on a secondary side of the transformer and a threshold current.

20

5. The current-to-voltage conversion circuit as claimed in claim 4, further comprising:
a drive control circuit to drive the
25 transformer; and
a first coupler circuit including a photo-coupler to couple an output of the first comparator and an input of the drive control circuit.

30

6. The current-to-voltage conversion circuit as claimed in claim 3, wherein said second
35 circuit includes a second comparator to compare an output voltage on a secondary side of the transformer and a threshold voltage.

7. The current-to-voltage conversion circuit as claimed in claim 4, wherein said second circuit includes a second comparator to compare an output voltage on a secondary side of the transformer and a threshold voltage.

8. The current- to-voltage conversion circuit as claimed in claim 5, wherein said second circuit includes a second comparator to compare an output voltage on a secondary side of the transformer and a threshold voltage.

9. The current-to-voltage conversion circuit as claimed in claim 6, further comprising:
a drive control circuit to drive the transformer; and
a second coupler circuit including a photo-coupler to couple an output of the second comparator and an input of the drive control circuit.

10. The current-to-voltage conversion circuit as claimed in claim 7, further comprising:
a drive control circuit to drive the transformer; and
a second coupler circuit including a photo-coupler to couple an output of the second comparator and an input of the drive control circuit.

11. The current-to-voltage conversion circuit as claimed in claim 8, further comprising:

5 a second coupler circuit including a photo-coupler to couple an output of the second comparator and the input of the drive control circuit.

10 12. An electronic apparatus connectable to a current-to-voltage conversion circuit having an output side,

said current-to-voltage conversion circuit assuming a deactivated state when the output side is
15 in a no-load state and assuming an active state when an external voltage is applied to the output side,

said electronic apparatus comprising:

a switching circuit to apply the external voltage to the output side of the current-to-voltage
20 conversion circuit in the deactivated state.

25 13. An electronic apparatus comprising:

a current-to-voltage conversion circuit comprising an input section to receive an input power, a transformer to convert the input power into an output power, an output section to output the
30 output power, a first circuit to stop a power supply to the transformer and put the current-to-voltage conversion circuit into a deactivated state when the output section is in a no-load state, and a second circuit to start a power supply to the transformer
35 and put the current-to-voltage conversion circuit into an active state when an external voltage is applied to the output section; and

a control section to apply the external voltage to the output section of the current-to-voltage conversion circuit in the deactivated state.

5

14. A power supply control method adapted to a current-to-voltage conversion circuit which has a transformer for converting and outputting an input power, comprising:

detecting a no-load state of an output side of the current-to-voltage conversion circuit; and

stopping a power supply to the transformer when the output side of the current-to-voltage conversion circuit is in the no-load state.

20

15. A current-to-voltage conversion circuit having an active state and a deactivated state, comprising:

an input section to input an input power;

a transformer to convert the input power into an output power;

an output section to output the output power;

a detecting section to detect a no-load state of the output section; and

a circuit to stop a power supply to the transformer and put the current-to-voltage conversion circuit into a deactivated state when the output section is in the no-load state.

35